Emissions Trading

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Before trading

- Stationary sources obtained permits
- Emissions were monitored and reported
- Permit condition compliance was tracked
- Continued on unchanged for 5 years or until a modification triggered a permit revision

If things remained as is...

- There would be no change to regulations or air quality
- There would be no need for a facility to change its production capacity
- There would be no fluctuation in the market for a facility's materials
- There would be no demographic shifts

However, when faced with change...

- **Facilities could do the following:**
  - -- Apply controls
  - -- Find a way out of applying controls
  - -- Shutdown

  …Or, they could trade!

Birth of emissions trading

- Some could afford to apply controls and wanted to reap the benefits of increased capacity; and offset the cost of controls
- Some could not afford to apply controls and wanted to reap the benefits of increased capacity; and offset the cost of controls
- *But how do they find each other?*

Emissions trading

- The concept of trading is very old
- Emissions trading began in 1970's
- EPA's 1990 Acid Rain Program capped sulfur dioxide emissions back East
- Trading became "institutionalized"
- *But*, with or without a trading program, facilities can trade emissions

Flexibility requires structure

- Before trading was given a structure, facilities needed to discover the following on their own:
  - Where can I find available emissions?
  - How do I know these emissions are any good?
  - Is the cost of the trade realistic, fair?
  - How do I account for these emissions?
  - Can I keep these emissions for a rainy day?
  - I’m new – how can I get some emissions?

Essential elements

Because trading must be:

Efficient

Transparent

Reliable

Emissions reductions must be:

Quantifiable

Permanent

Enforceable

How is all that ensured?

- **You build a trading parlor**
  - Foundation and walls = permits
  - Décor = monitoring and emissions reporting
  - Nails and wiring = compliance
  - Tables with place cards = registry
  - Servers = brokers or agents
  - Cashier = administrator
  - No uninvited guests, no back room tables, no flies in the soup…

Will they come to my trading parlor?

- *Emission caps* -- sorry, we do have limits
- *Law of supply and demand* -- sorry, we're all out allowances
- *Milestones* -- sorry, we have to show steady and continuing emission reductions
- *Compliance* -- sorry, all facilities must be in compliance with their allocations

Optimizing trading programs

- Trading programs need a “critical mass” of traders – buyers *and* sellers
  - ✓Programs that capture more traders increase critical mass
- Trading must be cost-effective
- Trading allows for flexibility in a changing market, making reductions more likely

Trading program impacts

- **On Industry:**
  - ✓ Locating, establishing, and reporting possible trades is up to facility personnel
  - ✓ Enhanced level of monitoring at each stack (CEMS?)
  - ✓ Increased detail and frequency of emissions data reporting -- quarterly and annually
  - ✓ EPA-enforced program (fine$)

Trading program impacts

- On DEQ:
  - ✓Track and approve all trades (1 FTE)
  - ✓Enhanced monitoring, inspection, compliance, and clerical work associated with emissions checks, reporting, and trade program enforcement (1.5 FTEs)
  - ✓Emissions inventory projects become more detailed and more frequent (Increase Web use)
  - ✓Ensure transparency of Trading Program (Web page query tool for public)